

REMARKS

Pending Claims

In this application, claims 1-10 and 12 are currently pending. Claim 1 is amended by this Response. Claims 2-10 are amended via their dependency on amended claim 1. Claims 11 and 13 are canceled. Entry of these amendments is respectfully requested.

Priority

The Applicant amends the specification to add a description of the chain of priority for this application. No petition or fee is required, because the priority information was provided by the Applicant on the Transmittal Sheet and Declaration submitted with the filing of this application, and such priority information was captured in the filing receipt for this application.

Drawings

The Examiner has objected to the drawings for failing to show "strip electrodes forming helical lines"

The Applicant submits new FIG. 7b to address the issue regarding helical lines. The Applicant respectfully submits that no new matter is added; the helical arrangement was discussed in the specification as filed at page 7, lines 22-26:

If in contrast the electrodes are disposed on the carrier along spaced helical lines, then a correspondingly helical zone of the tissue is treated and coagulated. In the event of an additional axial movement of the electrode arrangement, a circular coagulated enclosing passage is then formed around the carrier.

In addition, the Applicant amends the specification to make reference to new FIG. 7b.

The Examiner has also objected to the drawings for failing to show "the strip electrode with an optical waveguide". The Applicant respectfully submits that such an arrangement is indeed shown in the figures and described in the specification. For example, the embodiment shown in FIGS. 9 and 10, includes strip electrodes 2 and 4 as well as an optical waveguide 60. This embodiment is discussed in the specification, for example, at page 23, lines 10-21, and more specifically at page 23, lines 14-21:

An elongate, uniform, insulating carrier 70 comprises a metal tube 71 which is completely coated with an insulating layer 72 and which has continuously as far as the distal tip 12 a central hollow duct through which an optical waveguide 60 extends to the distal tip 12. The optical waveguide 60 extends to the distal tip 12. ... Disposed externally on the insulating layer 72 in the longitudinal direction, ... , are two strip-shaped electrodes 2, 4.

Rejection under 35 U.S.C. §112 (first paragraph)

In the Office Action, a rejection was made under 35 U.S.C. §112 (first paragraph) to claims 1-13. The Examiner asserts that:

[t]here is no disclosure of a 'front cylinder' at the distal end of a carrier. Rather, the front tip portion is a solid, conical member (Figures 7 and 8) or a continuous tube (Figures 9 and 10) with no delineation between a cylindrical member and an insulating carrier.

The Applicant respectfully submits that indeed the application does disclose a front cylinder at the distal end of a carrier. The solid, conical member, shown in FIGS. 7 and 8, is in fact a "front cylinder". This will be understood with reference, for example, to the specification's discussion of the FIG. 7/8 embodiment. At page 22, lines 26-27, the specification notes the existence of a "front cylinder" that is denoted by reference number 10: "Proximally adjoining a front cylinder 10 having a distal tip 12 is an elongate, electrically insulating carrier 70...". Thus, the Applicant respectfully submits that claims 1-12 are supported by the specification in their recitation of a front cylinder at the distal end of a carrier.

The Examiner also objects to the claims because, quoting the Office Action:

there is no clear disclosure that the strip electrodes from this embodiment may be provided in a helical pattern, as shown in Figures 28 and 29. Rather the helical pattern appears to be an entirely different embodiment that fails to show at least two electrodes formed as strips.

As noted above in the discussion of The Drawings, the helical pattern embodiment was described in the specification as filed at page 7, lines 22-26. Therefore, the Applicant respectfully submits that the recitation of claim 4 was adequately supported by the specification. New FIG 7b is added, in accord with this description and further supports the recitation of claim 4. Further, it is noted that the embodiment of FIGS. 28 and 29 do not, indeed, include helical electrodes. Rather, the helical structure shown in FIGS. 28 and 29 is a spring-like element, not recited in the pending claims.

The Examiner has also objected to the claims because:

there is no disclosure of an optical fiber used with the embodiment having strip-shaped electrodes, and certainly no disclosure of the strip-shaped electrodes applied directly onto an outside sheath of an optical fiber.

The Applicant notes, however, that the claims do not recite an "optical fiber". Claims 7 and 12 do recite an "optical waveguide". The optical waveguide is designated as element 60 throughout the figures and is shown, for example in FIG. 9 which embodiment also includes strip-shaped electrodes 2, 4. This embodiment is discussed in the specification at page 8, lines 17-19 and at page 23, lines 13-21. Claims 12 has been

amended to correct a typographical error and this correction may further clarify this issue.

Art Rejections

The Examiner has rejected original claims 1-13 on the basis of 102 and 103. Claim 1, from which all other claims depend, has been amended and therefore the art rejections are rendered moot. The Applicant notes that claim 1 has been amended to recite the rigidity of the material that comprises the carrier. This feature was previously recited in claim 13, and therefore the rejections with respect to claim 13 will be addressed here. Specifically, claim 13 was rejected for being anticipated by Fleischman 6,146,379. The Applicant respectfully submits, however, that Fleischman discloses a flexible guide element which creates curvilinear continuous lesions. The Fleischman guide element is described as "flexible" throughout its description and is nowhere described as "rigid". Further, it would not be obvious to modify Fleischman to employ a "rigid" guide member because a rigid device would not yield curvilinear lesions, as does the flexible guide. Thus, the arrangement recited in claim 1 is patentably distinct from Fleischman.

With regard to the other references cited by the Examiner, the Applicant points out that Hess' device is described as bendable at column 4, lines 53-58. The device described by Imran is flexible as described in the Abstract.

The dependent claims recite additional features which lead to further advantage. For example, claim 4 recites two strip-shaped electrodes that are arranged in a helical pattern. The Examiner had pointed to FIG. 48 of Fleischman. However, this Fleischman embodiment shows only a single electrode and therefore fails to show the pair of electrodes recited in claim 4. A pair of electrodes can be operated in a bipolar mode. Fleischman does not describe a bipolar mode for the embodiment of FIG. 48.

CONCLUSION

All of the claims remaining in this application should now be seen to be in condition for allowance. The prompt issuance of a notice to that effect is solicited.

Respectfully submitted,
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